A newsletter of the
LTAP
Issue Number 58, Spring 1998

Bulletin

Last Winter — Were We Ready?

By George Crommes, P.E.

Spring is the time to review what went well and what needs improvement in our winter operations. Some parts of the country were more impacted than others by the 97-98 winter. An evaluation of how each agency responded should include the following reviews:

- Previous season preparations.
- The process used for previous winter planning.
- The amount and allocation of people.
- The amount and allocation of equipment.
- The safety record of our people.
- The type and amount of materials and supplies used.
- The costs to provide the services.
- Problems and opportunities encountered.

Early in the spring, a meeting of all parties that had a role in the previous winter maintenance and operations should be held. This group would include police, operations foreman and operators, union representatives, the "money manager," office staff, public works director, and others as deemed appropriate.

An easy way to get started is by asking questions. Notes should be taken by a recorder and a summary prepared for each of the participants including any new people that may be involved in the upcoming winter season. Some typical questions that could be asked are the following. Additional questions can be added to this list.

1. What went well? Why?
2. What problems did we have?
3. Where were the problem areas — location, type (intersections, grades, drainage)?
4. Did we have enough people when we needed them?
5. Was last winter typical? If not, worse or better?
6. Were there coordination problems?
7. How much overtime occurred?
8. Based upon last season's actions, is there a need for additional training?
9. Where can we improve?

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T2

The Northwest Technology Transfer Center
TransAid-WSDOT

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10. Have we corrected drainage problems prior to the winter?
11. Were there signage problems, intersection problems prior to the season?
12. Did we have law suits? — Potential suits?
13. What and why these suits and what were the results?
14. Did we have snow maps?
15. Were area assignments clear?
16. Did we define and plan for "problem areas?"
17. Were all parties informed of their duties and responsibilities?
18. Did we have a snow removal policy?
19. Were new people properly trained?
20. If we were hit by a storm greater than normal could we have responded effectively?
21. Did we have enough people?
22. Were agreements completed in regards to overtime, etc.?
23. Were people properly trained to do their job safely for themselves and the traveling public?
24. Was equipment "ready to go?"
25. Were spare parts on hand?
26. Was equipment properly allocated to areas and people?
27. Were operating and maintenance manuals available?
28. Were equipment calibrated prior to the first need?
29. Was materials on hand? And properly located?
30. Were stockpiles filled? Fluids available?

(Add your own) _____

(Add your own) _____

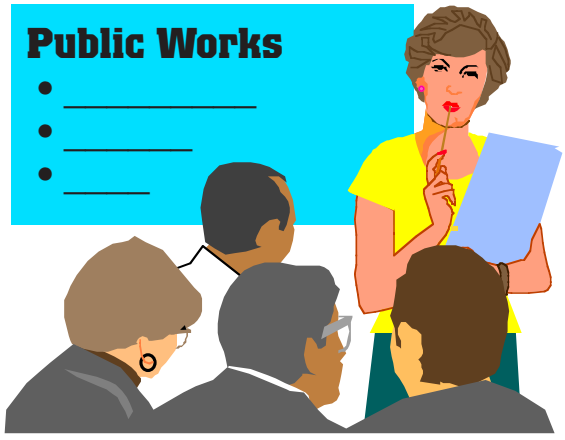
In summary, a review of how we responded to the previous winter season can help in preparing for our next winter's activities. At that time, all processes should be in place, people will know their roles, equipment and materials will be ready, funds will have been budgeted, a response record system will be in place, and coordination efforts will be known.

Planning for the next winter storms is not an exact science, but with proper consideration and evaluation of our previous season we may be better prepared early enough for next winter.•

Up and Running

Associate of Technical Arts in Public Works

The community college system has started an Associate of Technical Arts in Public Works (ATAPW) degree program and it is now available at South Puget Sound Community College and Bates Technical College. Various career paths are available. Students can get a curriculum of courses from SPSCC, or refer to their latest catalog. Basic courses can be taken at any community college, but final course work must occur at SPSCC. Contact Jim Nichols, P.E., the program coordinator at (360) 754-7711 ext. 590.



Washington State Bicycle Racing Guidelines

By Mike Dornfield

Last fall and winter a group met to develop guidelines to regulate bicycle racing on state highways. The group included representatives from the Badlands Bicycle Racing Club in Spokane, the United States Cycling Federation (the governing body of bicycle racing in the U.S.), American Automobile Association of Spokane, the Washington Traffic Safety Commission, the Washington State Patrol, and WSDOT (Eastern Region) Traffic and Bicycle and Pedestrian Program. The goal was to ensure that bicycle racing could continue to be safely held on state highways with minimal disruption to the traveling public.

The group developed a Washington Administrative Code (WAC) that allows bicycle races on state highways, defines bicycle racing, requires organizers to get a permit for the race, and sets criteria for holding different types of races. The group also developed *Washington State Bicycle Racing Guidelines.* The Bicycle Racing Guidelines define bicycle racing terms, describes major types of races, details traffic control for different types of races, includes a checklist for race organizers and reviewers, and a race permit application form. The guidelines as written apply to state highways but could be adopted by local agencies.

The Bicycle Racing Guidelines address organized competitive bicycling only. Racers may not be following the rules of the road in some types of bicycle races. The guidelines do not address the many noncompetitive bicycle rides organized each year in Washington like the Seattle to Portland ride.

Copies of the Bicycle Racing Guidelines are available from WSDOT Region Traffic Offices or the Olympia Service Center Bicycle and Pedestrian Program. For more information call Mike Dornfield at (360) 705-7258.•

Director's Column

This is the final issue of the Bulletin that I will edit. I have decided to retire from state service and try something new. I have enjoyed bringing each of you something that, I hope, helped in your daily work. It was challenging to try to meet at least some of your needs for information as provided through this newsletter. If I have assisted you in anyway over my past 15 years with your T^2 Center, I feel gratified.

As director I have had the privilege to work with many of you personally and with your proactive associations. Whether public works director, superintendent, equipment operator, engineer, manager, technician, or laborer, you all have contributed to technology transfer. Keep up your interest in learning something new each day. Keep participating in peer associations. They are the way to promote professionalism and interest in public works and more importantly — your career.

Your training coordinator, Larry Roediger, is retiring at the end of May. With over 37 years with WSDOT, Larry has decided to try a career change also. Larry was the one who effectively found or arranged those special classes that your agencies desired. Recently, he assisted you when oil rebate funds were made available for various energy savings projects. Our "Engineering Educational Opportunities" is created and edited by Larry to provide you a quarterly update of training information in printed format every six weeks.

Your T^2 Advisory Committee is one of the best in the country. I thanked them for their sincerity and the extra time each of them took to advise me and staff. With Walt Olsen as chair, the committee will guide the Center in positive ways in the future as it has before.

Thanks for all the friends I've met through T^2 and thanks for sharing these many years.

George D. Crommes, P.E.

Training for Success

By Will Kinne
Pierce County Road Operations Manager

We will soon be entering a new millennium which promises to be even faster paced, increasingly technical in nature and more demanding of governmental agencies regarding high quality service based upon no-frill budgets and fewer personnel. To meet these challenges we must establish high standards and expectations of our workforce while providing them with the educational and training tools to succeed. The employee of the future will need to know more than one specific area or function — he or she will need to be knowledgeable and possess skills on a variety of subjects to successfully progress in their chosen career path and provide the cost-effective, quality service the public routinely expects.

The challenge of management will be to provide and prepare employees with educational and training opportunities not only relating to their current positions but also to their personal and employer long-term goals. To assist our personnel to attain their career path goals, Pierce County Road Operations management is offering up to 24 hours of personal training annually per employee. Because of this, a survey was developed and conducted to determine the areas of employee training interests. For example: what kind of career training would you choose if given the opportunity? Computer classes? Obtaining a CDL? Spending a day observing a road crew or utility inspector at work? Training for an office manager position? What are your career goals and how can we (Road Operations Administration) help you? These were just a few of the survey's questions.

Employee response to the initial survey was prompt, enthusiastic, and varied regarding the types of training requested. After analyzing the survey results, an Employee Training Manual was developed based on the employee responses and stated career goals and within departmental budgetary guidelines and procedures. Training requests were assigned to one of five categories: equipment training, maintenance functions, maintenance administration, engineering and personal growth. For example: computer, leadership, and cultural diversity training were considered "Personal Growth" training. Obtaining a CDL, exposure to operating a dump truck, grader, backhoe, or sweeper was listed under "Equipment Training." Pavement management, utility inspection, road building and hydraulics came under "Maintenance Administration and Engineering." Observing grader surfacing, drywall installation, and chip sealing was considered to be "Maintenance Functions."

Our "Divisional Training Opportunities Manual" included an introduction, statement of purpose, individual course description (including the number of hours for each course) and an employee training request sheet. In order to successfully implement the manual the following steps were taken:

- The operations manager personally delivered the manuals to each shop explaining the manual's purpose and answering employees questions.
- Employees were encouraged to complete the training request sheets and return them promptly.
- An overview spreadsheet was prepared documenting training requests by employee, shop, job position, and training course.

With the completed overview, we were able to determine the main areas of interest, i.e. computer training, supervisory/leadership training, utility inspection, hydraulics, surveying, etc. and organize a training schedule accordingly. We plan to implement this schedule immediately. The benefits of establishing such a training program include:

- Broadening the personal and professional skills of the individual and in turn creating more flexibility of task assignment within the organization.
- Improved morale (an organization willing to invest in their employees will benefit in terms of increased productivity, loyalty, and innovation from the staff).
- Better trained, more versatile personnel allows for more creativity and efficiency in the budgeting of projects.
- The public will see projects and tasks completed in a professional, timely, and cost-effective manner (possibly the biggest beneficiary).

The Pierce County Road Operations Division is committed to promoting, providing, and motivating its employees to obtain the education and technical training which will link a successful career path from today's tasks to tomorrow's challenges. We encourage other counties and organizations to become partners with their employees to assure that their organization's vision of the future becomes reality. Please feel free to contact us for any further information at : Pierce County Road Operations, 3619 Pacific Avenue, Tacoma, Washington 98408. Or call (253) 798-7795.•

Potential Noise and Vibration Impact Assessment Class

The National Transit Institute (NTI) is willing to offer a "Noise and Vibration Impact Assessment" class in the Seattle area if approximately 30 people register for the class. If there is sufficient interest, the class would be held sometime between May and October 1998. This class is 2.5 days in duration. The class objectives are as follows:

- Understand basic concepts of noise and vibration and the requirements of the Federal Transit Administration (FTA);
- Be able to determine when a noise or vibration assessment is required and what level of impact assessment is appropriate;
- Have sufficient knowledge to evaluate qualifications for producing a noise or vibration assessment for a transit project;
- Understand the procedures and major analytical steps of reviewing the noise or vibration report of a transit project.

Who Should Attend?

- Users of the new FTA guidance manual;
- Those conducting noise and vibration studies;
- Management personnel or project sponsors who need a fuller understanding of the methods used by consultants in such studies;
- Others in more general fields such as environmental planners and transit project planners from local agencies including transit.

Those interested in attending this class should contact Dale Grenier of WSDOT's Environmental Affairs Office. Please contact Dale by e-mail at dgrenier@wsdot.wa.gov or by phone at (360) 705-7478.•

Washington Interagency Stream Corridor Management Symposium

The Washington Interagency Stream Corridor Workgroup is cosponsoring, with the Washington State Department of Ecology, Fish and Wildlife and Transportation, a Stream Corridor Symposium. This symposium will be held in Ellensburg June 9-10 at the Central Washington University.

The Washington Stream Corridor Workgroup is a group working for consistency in managing stream corridors for stream and riparian restoration, fish habitat improvement, erosion control, and flood hazard reduction.

The goals of the symposium are to:

- Educate landowners, practitioners, and regulators about state-of-the-knowledge techniques and design procedures for restoring or stabilizing streambeds, banks, and riparian corridors while maintaining or improving fish habitat.
- Achieve consistency among agencies regulating or funding stream corridor stabilization projects.

A common understanding of stream science, and statewide consensus on appropriate techniques and treatments for channel stabilization and restoration, will optimize the beneficial effects of money spent on anadromous and resident salmonid recovery efforts. A statewide technical consensus should also facilitate consolidation of permit authority and improve efficiency or regulatory programs.

The workgroup and others in the field are expanding the Washington State Department Fish and Wildlife's *Integrated Streambank Protection Guidelines* into a state guidance document. This process will begin with a panel of local, state, and federal agency representatives reviewing and critiquing the Fish and Wildlife guidelines in a workshop to be held later in the month.

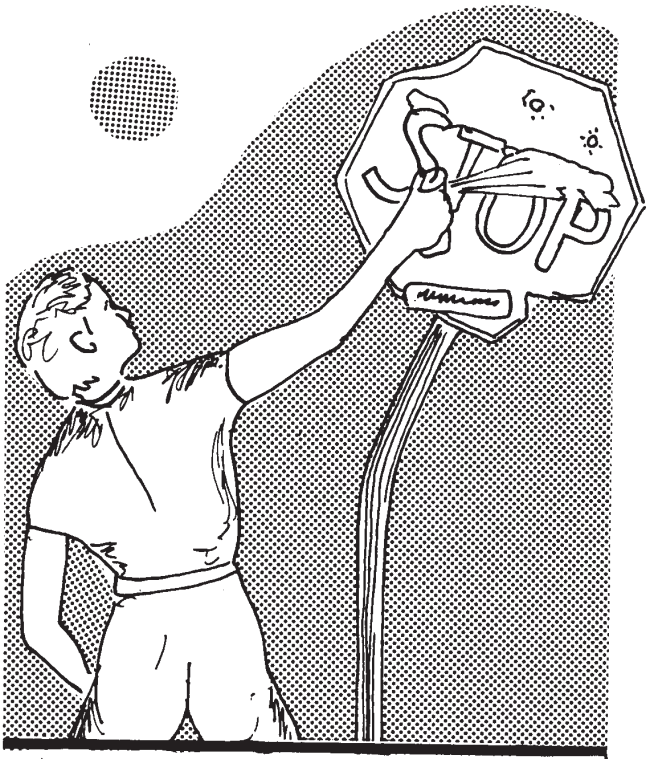
Registration is limited to 250 persons. The registration fee is $125 per person which includes two-day conference admission, lodging on June 8 and 9, and meals on June 9 and 10. If you have questions please contact Sandy Stephens at (360) 705-7304, e-mail: sstephen@wsdot.wa.gov, or fax (360) 705-6833.•

Sign Vandalism: A Deadly Game

On the night of February 7, 1996, pranksters knocked down the stop sign at a rural Florida intersection. Later that night, three young men, all 18, drove into the path of a semi-trailer truck. All three teens were killed.

Fifteen months later, a jury, following weeks of testimony found three young adults guilty of manslaughter and grand theft. The jury recommended a sentence of 27 to 46 years. The threesome admitted to stealing more than a dozen traffic signs one night, but denied anything to do with the stop sign at the intersection where the three young men were killed.

The jury was not convinced of the defendants' innocence, despite no fingerprints, eyewitnesses, or confessions linked to the accused. The prosecutor said she thought the defendants ultimately might have been convicted on their own words to the detective. All three denied stealing the signs at first, but then admitted to a collection that included at least one stop sign. On June 29, 1997, all three defendants were sentenced to serve 15 years imprisonment. All must serve a minimum of 85 percent of their sentence, or 13 years.•



Source: With permission from Wyoming T^2 Center. Original material modified from materials in the LINK Summer 1997 by Nancy Dunaway.

Pavement Recycling

Editor Note:

This article which was adopted from a pamphlet by FHWA provides an overview and a refresher on this important way to reduce costs, preserve the environment, and conserve resources. Give it a try if you haven't already. Also, as most roads in our county 'happened' over time without formal design of base materials, it is important to consider base stabilization as a first step in upgrading our existing roads. As with a building, correcting a weak foundation can go a long way towards preserving our investments.

Pavement Recycling — A Successful Time-Tested Technology

When it comes to recycling pavements, highway agencies and contractors are finding that everything old is new again. Thanks to significant advances in technology, material removed from old asphalt and concrete roads is being increasingly recycled into new pavement construction. The recycling process has been developing since the early 1900s, but since the 1970s it has increased in popularity mainly due to improved technology and equipment development that are consistently producing better performing pavements at reduced costs.

Saving Money While Protecting the Environment

Pavement recycling technology cuts down on waste that might be added to landfills and protects the environment by reusing nonrenewable materials obtained from old highway pavements. The technology provides cost savings not only to highway agencies, but also to contractors doing the work. They purchase or use fewer virgin materials, resulting in a cost savings from fuel not used for transporting and manufacturing those materials. Additionally, less oxygen and fuel are consumed, which in turn helps preserve the environment and air quality.

Recycling Technology Advancements

During the past 25 years of active research and equipment development, pavement recycling has progressed from an experimental technology to a practical and efficient method for pavement rehabilitation. Several new techniques and types of equipment, such as the following, have advanced pavement recycling technology:

- Improved recycling equipment, including better materials mixing, refined grade controls, and enhanced heat transfer.
- Drum plants designed for recycled materials.
- Infrared radiant heating for pavements.
- Counterflow technology for reduced environmental impacts.
- Improved control of aggregate gradation during recycling.
- Microwave units to heat pavements.
- More precise additive controls.

These advances increase the recycling production rate, allowing a greater percentage of recycled materials to be used in the pavement mixture and producing a high-quality pavement. Recycled pavements perform as well as conventional ones, provided that detailed design analysis is properly done and careful quality control is maintained during the production and laydown process.

Current Methods of Pavement Recycling

Several methods of pavement recycling are currently in use throughout the United States:

Hot Plant Recycling uses Reclaimed Asphalt Pavement (RAP) material that is blended with virgin material in a Hot Mix Asphalt (HMA) plant. Paving mixtures containing 15 to 30 percent RAP are commonplace. Currently 33 percent of all asphalt pavement that is removed from highways is recycled back into new pavement.

Hot In-place Recycling (HIR) uses a paving train that first heats and then scarifies or mills the existing pavement surface. The materials and rejuvenators are then mixed in a pug mill or the recycling additives are applied on the windrowed material. The process then places the pavement using conventional paving equipment. With this method 100 percent recycling of the in-place material is possible. All work can be done on-site by the paving train with little or no material being transported. Additionally, the roadway's grade and crown can be reprofiled,

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correcting existing deficiencies as part of the HIR process instead of requiring an additional step for placing a leveling course as is generally done in conventional paving.

With ***Cold In-place Recycling (CIR)***, a paving train mills the pavement to the desired depth, then mixes in asphalt emulsions or other recycling additives, and processes the recycled materials on-site. As in HIR, no transportation costs for materials are incurred, and since no additional heat is applied, even more fuel savings are realized. Also, as with HIR, the roadway surface can be reprofiled as part of the recycling process. Because the milling process takes place deep down in the old pavement, cracking patterns are removed. Sometimes portions of the CIR recycling process are begun at a central plant and cold mix is transported to the roadway for the laydown operation. CIR is proving to be one of the most energy efficient recycling technologies.

In the ***Full-depth Reclamation (FDR)*** process, in-place asphalt pavement and part of the underlying soil base material are crushed and blended with fly ash, cement, chemicals, or asphalt emulsions, resulting in a recycled, stabilized pavement base. The base is then shaped and compacted as needed, and a new pavement is placed on top. FDR is a process that can correct performance problems in existing soil bases or pavement structures and create structurally sound bases for construction of future highway pavements.

Recycled Concrete Aggregate (RCA) is created when concrete pavements are broken up mechanically and crushed to desired size either at a stationary crushing plant or by a portable train system. The crushed material is used as aggregate for base construction. In current projects, these recycled materials may be used as aggregate for new concrete and asphalt pavements. Current research in concrete pavement containing RCA focuses on pavement performance and is expected to produce guidelines for design and construction of recycled concrete pavements.

A Commitment for the Future

Pavement recycling technology continues to grow more sophisticated, and nonrenewable resources continue to shrink. It is time for highway industry partners — state and local governments, contractors, industry associations, materials suppliers, and the Federal Highway Administration — to meet the challenge to use more recycled pavement materials. As highway industry partners are increasingly involved, improved recycling techniques and methods will develop. Numerous research studies and field experiments on recycled pavement and waste by-product materials are adding to the number of viable methods and materials for pavement recycling. Overall, these efforts will help to preserve the environment, conserve our natural resources, and provide a cost savings to the highway industry.•

Source: FHWA's pamphlet "Pavement Recycling," FHWA-SA-97-063. 1997.

Free Publications From Your T2 Center

For Washington residents only.

Name _____

Agency _____

Address _____

City and Zip _____

Phone _____

Check those items you would like to order.

___ Current Application and Successful Implementation of Local Agency Pavement Management in the United States, FHWA, 1997

___ Scrap Tire Utilization Technologies, NAPA

___ State-of-the-Art Survey of Flexible Pavement Crack Sealing Procedures in the United States, CRREL, 1992

___ Maintenance of Aggregate and Earth Roads, NWT2 Center (1994 reprint)

___ International State-of-the-Art Colloquium on Low-Temperature Asphalt Pavement Cracking, CRREL

___ The Engineer's Pothole Repair Guide, CRREL

___ Geotextile Selection and Installation Manual for Rural Unpaved Roads, FHWA

___ Guide to Safety Features for Local Roads and Streets, FHWA, 1992

___ Family Emergency Preparedness Plan, American Red Cross, et al.

___ Getting People Walking: Municipal Strategies to Increase Pedestrian Travel, Rhys Roth, Energy Outreach Center

___ The Superpave System – New Tools for Designing and Building More Durable Asphalt Pavements, FHWA

___ A Guide to the Federal-Aid Highway Emergency Relief Program, USDOT, June 1995

___ Asphalt Seal Coats, T2 WSDOT

___ Pothole Primer — A Public Administrative Guide, CRREL, 1989

___ Redevelopment for Livable Communities, Rhys Roth, Energy Outreach Center

___ A Guidebook for Residential Traffic Management, NWT2 Center, 1994

___ A Guide for Student Pedestrian Safety, KJS, 1996

___ A Guide for Local Agency Pavement Managers, NWT2 Center, 1994

___ Local Agency Pavement Management Application Guide, NWT2 Center, 1997

___ More Than Asphalt, Concrete and Steel, FHWA, 1997

___ Positive Guidance and Older Motorists — Guidelines for Maintenance Supervisors, Texas A&M

___ Planning, Design, and Maintenance of Pedestrian Facilities, FHWA, 1989

___ Traffic Calming: A Guide to Street Sharing

___ Pedestrian Facilities Guidebook, WSDOT, et. al.

Workbooks and Handouts From T² Center Workshops

___ Handbook for Walkable Communities, by Dan Burden and Michael Wallwork
___ Geosynthetic Design and Construction Guidelines, National Highway Institute
___ Construction of Portland Cement Concrete Pavements, FHWA, 1996
___ Planning and Implementing Pedestrian Facilities in Suburban and Developing Rural Areas, TRB
___ Rockfall Hazard Mitigation Methods, FHWA, 1994
___ Part VI, Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility, and Incident Management Operations. Handbooks included: Quality Standards for Work Zone Traffic Control Devices and Flagging Handbook, FHWA, 1993

Self-Study Guides

The following noncredit self-study guides are available through WSDOT Staff Development and can be obtained from the T² Center. An invoice will be sent with the books.

___ Technical Mathematics I, $20
___ Technical Mathematics II, $20
___ Contract Plans Reading, $25
___ Basic Surveying, $20

Brief (One- to ten-page) T² Handouts

___ Asphalt Pavement Recycling, Crommes, Montague, 1993
___ Be an Effective Coach
___ Characteristics of Effective Decision Makers, Parlay 1996
___ Characteristics of a Successful Project Manager, Parlay 1996
___ Effective Communication, Parlay 1996
___ Effective Delegation, Parlay 1996
___ Eleven Tips for Time Management, Parlay 1996
___ First Steps for New Supervisors, Parlay 1996
___ Four Basic Principles of Learning, Parlay 1996
___ Four Reasons to Call a Meeting, Parlay 1996
___ Four Sources of Everyday Training, Parlay 1996
___ Get to Know Your Employees, Parlay 1996
___ Hearing Complaints, Parlay 1996
___ How to Listen to Your Employees, Parlay 1996
___ In-House Policies for Reducing Tort Liability
___ Managing Your Work Environment, Parlay 1996
___ Mitigating Road Hazards, Crommes, 1997, (Revised)
___ Operating Tips-Flagging (Updated)
___ Planning is Important, Parlay 1996
___ 20 Proven Stress Busters, Parlay 1996
___ Supervising Older Workers, Parlay 1996
___ 10 Ways to be Better Organized for Your Boss, Parlay 1996
___ The Four Ds of Paperwork, Parlay 1996
___ Tips for Reducing Tort Liability (articles from various sources), 1992
___ To Counsel or to Coach
___ Using a Gantt Chart, Parlay 1996
___ Using a PERT Diagram, Parlay 1996
___ Value Engineering, Crommes
___ Working With Your Boss, Parlay 1996

Orders may be faxed, mailed, or phoned to Laurel Gray
Phone: (360) 705-7386,
Fax: (360) 705-6858
Mailing Address: NWT² Center, WSDOT/TransAid, P.O. Box 47390, Olympia, WA 98504-7390

In the News

NCHRP: Roadside Safety Improvements Sought

Improvements to roadside safety are needed to reduce some 14,000 deaths annually resulting from roadside crashes, according to a report by the National Cooperative Highway Research Program.

Prepared under NCHRP Project 17-13, the report "Strategic Plans for Improving Roadside Safety" addresses the many strategies for improving roadside safety. A digest of that report has been released by the Transportation Research Board.

Roadside crashes result in almost one million injuries annually, and cost society $80 billion annually. That is more than three times the amount federal, state and local governments spend to maintain and operate roads each year. Rollovers are the most severe type of roadside crashes. Although they occur in only 15 percent of roadside crashes, they are responsible for more than 25 percent of all roadside fatalities. Nearly 75 percent of rollovers occur on rural two-lane roads, designed to meet older, less demanding standards, according to the report.

The report maintains that improving roadside safety requires an integrated approach that considers the roadway, the vehicle and the driver. It also identifies many potential strategies and actions for addressing roadside safety problems that can be undertaken immediately. Copies of the digest may be obtained from the Transportation Research Board at (202) 334-3214.•

Source: AASHTO Journal, February 20, 1998.

Mr. T^2 Hits the Road

By George Crommes

After discussing retirement for two or three years, I have finally committed myself to do so, effective the end of April 1998. Hence, as you read this, I will have already packed my bags and started a new career, but first a week or two to recoup my thoughts and energies.

Many of you will be joining the "next career" stage soon as the number of gray hair people in your agencies get fewer and fewer. What I remember most is the commonality of purpose and interests that many of you have with others in public works. We all expect honesty, hard work, integrity, and professionalism to rule the day. It has been a real honor knowing and working with you all, whether private, city, county, federal, Indian tribe, or academia. Farewell.•

Opportunities to Enhance Your Skills

For more information, contact the training provider listed. For additional training needs contact the Northwest T^2 Center at (360) 705-7386 or 1-800-973-4496.

Workshops

NWT^2 Center, WSDOT
(360) 705-7386, Fax (360) 705-6858
http://www.wsdot.wa.gov/TA/T2/train.htm

Check our web pages for the most current and up-to-date training information. Classes are added weekly and is the most current source of information through the T^2 Center.

Scheduled Classes

Pavement Condition Rating Class. June 23-24, Tacoma.

Learn to rate the pavement conditions normally found in this state. Paul Sachs, instructor. No fee.

NHI's Pedestrian and Bicyclist Safety and Accommodation. June 16-18, Green River Community College, Auburn. The course is designed to provide training on safely integrating pedestrian and bicyclist considerations into normal highway planning, design, operations, enforcement, and education programs. $150.

NHI's Traffic Management Strategies. June 24-25, WSDOT Tacoma Maintenance Facility, Lakewood. The course is designed to provide an overview of urban and suburban congestion problems and the effective use of traffic management strategies for its relief by optimizing highway system operations and performance. $150.

Traffic Control Software and Signalization. September 23-24, Olympia/Lacey area. This course is designed to provide participants with skills required to evaluate the process by which signal control projects are developed, designed, implemented, maintained, and operated to promote sound practices. It addresses application of the Manual on Uniform Traffic Control Devices to intersection displays and also addressed are signal timing computerized traffic signal systems, control strategies, integrated systems, and traffic control simulation and optimization software. Practical application is emphasized. The course is divided into three parts: traffic signal design, traffic signal systems, and traffic software. Fee: $125.

Access Management, Location and Design. October 27-29, 1998, location tba. The course covers access management along streets and highways. General benefits, as well as the social, economic, political and legal implications of access control are examined. Existing access management practices and policies from sample states and jurisdictions are used as examples of what types of programs have been initiated and how effective they have been. Through in-depth discussion, access management techniques and the warrants for their use are reviewed. Geometric standards and guidelines for design and application of these access management techniques are described in detail. Strategies for developing and implementing retrofit programs to improve existing access control are presented. Several "before" and "after" case studies show the impacts of retrofit programs on local businesses. Techniques and procedures for evaluating the impacts of access control on the safety and operations of the highway system are also covered. Fee $150

Other National Highway Institute (NHI) classes coming this year:

- Historic and Archeological Preservation. Seattle/Tacoma.
- Design Construction and Maintenance of Highway, Safety, Appurtenances, and Features. Seattle.

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The following noncredit self-study guides are available from WSDOT's Staff Development office and can be obtained from the T^2 Center. An invoice will be sent with books.

- Technical Mathematics I – $20
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- Basic Surveying – $20

National Transit Institute (NTI)
(732) 932-1700, ext. 19
Contact Susan Greenstone
http://policy.rutgers.edu/nti/PROG2.htm

NTI provides free training for public employees in the areas of federal program responsibilities in cooperation with the Federal Transit Administration (FTA). NTI provides

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training throughout the country in the following areas: Federal Training Program, Multimodal Transportation Planning, Management Development, Professional Development Curriculum for Transit Trainers and Educators, and Advanced Technologies and Innovative Practices.

Washington Environmental Training Center
(253) 833-9111, Ext. 3369

Asbestos/Cement Pipe Work. June 5, Auburn. $135.

Confined Space Entry. June 5, Auburn. $135.

University of Washington Professional Engineering Practice Liaison (PEPL)
(206) 543-5539, Fax (206) 543-2352
http://www.engr.washington.edu/~uw-epp/Epp/upsc.html

Infiltration Facilities for Stormwater Quality Control. June 9-10, Seattle. $345 (early registration), $375.

Quaternary and Engineering Geology of the Central and Southern Puget Sound Lowland. August 6-8, Seattle.

Construction Site Erosion and Pollution Control. September 8-9, Seattle.

Effective Writing for Technical Professionals. September 15, 17, 22, 24, and 29 (five sessions.)

TRANSPEED, University of Washington
Call Julie Smith
(206) 543-5539, Fax (206) 543-2352
http://www.engr.washington.edu/~uw-epp/Transpeed/index.html

Prices shown are for city, county, WSDOT, and FHWA personnel. Contact UW for more details.

Roadway Safety: Analysis, Evaluation, and Programs. June 4-5, Lacey. $180.

Fundamentals of Traffic Engineering — Module III. June 9-10, Lacey. $150.

Developing Contract Specifications. June 17-18, Seattle. $150.

Basic Highway Capacity for Engineers and Planners. July 14-16, Vancouver, WA. $150.

American Society of Civil Engineers
1-800-548-2723
http://www.asce.org/confconted/conted.html

The ASCE offers a number of seminars on such subjects as construction, geotechnical, transportation, management, environmental, structural, and hydraulics and water resources. CEUs can be earned by attending. Various seminars are held in Seattle and Portland. The ASCE also offers self-study videotapes, audiotapes, and software some of which earn CEU credits.

Washington State University Conferences and Institutes
1-800-942-4978
http://www.eus.wsu.edu/c&i/

Consensus Building and Conflict Resolution. June 17-19, Pullman. $189.

American Traffic Safety Services Association (ATSSA)
(540) 898-5449, Fax (540) 898-6754
http://www.atssa.com/

ATSSA provides training throughout the country in the following areas:

- Worksite Traffic Supervisors
- Pavement Marking Technicians
- Traffic Control in Urban and Utility Work Areas
- Construction Zone Safety Inspection
- Pavement Marking Inspection
- Flagger Certification

Contact ATSSA for course information and scheduling.

American Public Works Association (APWA)
(816) 472-6100, ext. 3534
Contact Shirley Calandra
http://www.pubworks.org/Edu.html

APWA provides satellite video conferences where large audiences share concrete ideas and practical information. The following video conferences have been scheduled:

- June 17, Integrating GIS and Intelligent Transportation Systems;
- August 19, Quality Based Selection and Management of Consultants;
- October 21, Using Asset Management Systems to Protect Your Investment.

Contact APWA for details.

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Washington State Department of Personnel (DOP)
(360) 586-2720
http://www.wa.gov/dop/edtp/pages/contents.htm

Classes are open to state and local agency personnel based upon spaces available. Many computer classes are available but are too numerous to list. Contact DOP for their latest catalog or obtain from the Internet at above address. The following is a sampling of courses offered.

Effective Meeting Management. June 9, Olympia. $75.

Leadership Skills That Work. June 10, Olympia. $35.

Problem Solving and Decision Making. June 17, Olympia. $50.

Achieving Extraordinary Cutomer Relations. July 7-8, Olympia. $200.

Facilitator Skills Training. July 7-9, Olympia. $50.

Quality Through the Eyes of the Customer. July 15, Olympia. $50.

First Aid Basic (Two Days). July 16-17, Olympia. $25.

Entry Level Management Development Core Program-Phase I. July 21-24, Olympia.

Entry Level Management Development Core Program-Phase II. July 27-29, Spokane. $95.

Evergreen Safety Council
401 Pontius Avenue North
Seattle, WA 98109 (206) 382-4090
1-800-521-0778
http://www.esc.org/ecourse.html

Lift Truck Instructor Certification. June 8-12, Seattle. $795/$865.

Washington State Department of Labor and Industries (L&I)
(360) 902-5590, Fax (360) 902-5459
http://www.wa.gov/lni/workcomp/employer.htm

L&I conducts a number of no-fee workshops around the state including the following subjects:

- Accident Investigation
- Accident Prevention
- Bloodborne Pathogens
- Confined Spaces
- Controlling Your Claim Costs
- Excavation and Trenching
- Fall Protection
- Hazard Communications
- Introduction to Ergonomics and the Voluntary Ergonomic guidelines
- Lead in Construction
- Office Ergonomics
- Personal Protective Equipment

Resource Partners, Inc.
600 University Street, Suite 3431
Seattle, WA 98101
Contact John Thomas
(206) 223-1023, Fax (206) 223-5549

Resource Partners provides training in the following areas:

- Business and Accounting
- Computer Courses
- Employment Law
- Human Resources
- Safety and Equipment

For training catalog information contact the agency directly.

Computer Programs

The following computer programs may be downloaded from the Internet at *http://www.wsdot.wa.gov/TA/T2/computer.htm*

Design Cost Estimate. A software database program that calculates cost projections based on standard items.

Materials Approval Tracking. A software program designed to track materials data, need, status, and approval of any materials sampling and documentation needed for approval.

HyperCalc. A shareware utility for converting between metric and English units.

Force Account Macros. A series of ready-made Excel spreadsheets and macros to save you time on daily force account calculations and

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reports, including wage and equipment rates.

APWA CAD Symbol Standards and Menus. A public domain program of standard AutoCAD symbols developed by the Washington Chapter of APWA for use with AutoCAD release 12.

PaveSmart. A software program for implementing a pavement management system based in the WSDOT Pavement Management System.

Microsoft Access Runtime Program. Assists in running the Materials Approval Tracking and Design Cost Estimate Program.

UTEC System. A software program consisting of a main menu designed to provide a record base for identifying street locations within an agency.

Conferences and Meetings

http://www.wsdot.wa.gov/TA/T2/conf.htm

WSAC Annual Conference (Washington State Association of Counties). June 9-12, Sheraton Hotel, Tacoma.

38th Annual International Conference of Society of American Value Engineers (SAVE). June 14-17, Washington, D.C.

AWC Annual Conference (Association of Washington Cities). June 16-19, Sheraton Hotel, Tacoma.

1998 ASEE Annual Conference and Exposition (American Society for Engineering Education). June 28-July 1, Washington State Convention and Trade Center, Seattle. Conference theme: Engineering Education Contributing to U.S. Competitiveness.

ASCE 1998 Geotechnical Earthquake Engineering and Soil Dynamic Conference. August 3-6, Seattle.

Washington State Public Transportation Conference. August 25-27, Tacoma.

1998 International Public Works Congress and Exposition. September 14-17, Las Vegas, Nevada.

Transportation Planning for Small and Medium-Sized Communities. September 16-18, Spokane.

APWA Fall Conference (American Public Works Association). November 3-6, Wenatchee.

WSAC Legislative Conference (Washington State Association of Counties). November 10-12, Yakima

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The Technology Transfer Center (T2) Program is a nationwide effort financed jointly by the Federal Highway Administration (FHWA) and individual state departments of transportation. Its purpose is to translate into understandable terms the latest state-of-the-art technologies in the areas of roads, bridges, and public transportation to local highway and transportation personnel.

Any opinions, findings, conclusions, or recommendations presented in this newsletter are those of the authors and do not necessarily reflect the views of WSDOT or FHWA. All references to proprietary items in this publication are not endorsements of any company or product.

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TransAid Service Center

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